

# Journal of Feline Medicine and Surgery

<http://jfm.sagepub.com/>

## **Aujeszky's Disease/Pseudorabies in Cats: ABCD guidelines on prevention and management**

Etienne Thiry, Diane Addie, Sándor Belák, Corine Boucraut-Baralon, Herman Egberink, Tadeusz Frymus, Tim Gruffydd-Jones, Katrin Hartmann, Margaret J Hosie, Albert Lloret, Hans Lutz, Fulvio Marsilio, Karin Möstl, Maria Grazia Pennisi, Alan D Radford, Uwe Truyen and Marian C Horzinek  
*Journal of Feline Medicine and Surgery* 2013 15: 555  
DOI: 10.1177/1098612X13489211

The online version of this article can be found at:

<http://jfm.sagepub.com/content/15/7/555>

### **Disclaimer**

The Journal of Feline Medicine and Surgery is an international journal and authors may discuss products and formulations that are not available or licensed in the individual reader's own country. Furthermore, drugs may be mentioned that are licensed for human use, and not for veterinary use. Readers need to bear this in mind and be aware of the prescribing laws pertaining to their own country. Likewise, in relation to advertising material, it is the responsibility of the reader to check that the product is authorised for use in their own country. The authors, editors, owners and publishers do not accept any responsibility for any loss or damage arising from actions or decisions based on information contained in this publication; ultimate responsibility for the treatment of animals and interpretation of published materials lies with the veterinary practitioner. The opinions expressed are those of the authors and the inclusion in this publication of material relating to a particular product, method or technique does not amount to an endorsement of its value or quality, or the claims made by its manufacturer.

Published by:

[International Society of Feline Medicine](#)



[American Association of Feline Practitioners](#)



and

<http://www.sagepublications.com>

**Additional services and information for *Journal of Feline Medicine and Surgery* can be found at:**

**Email Alerts:** <http://jfm.sagepub.com/cgi/alerts>

**Subscriptions:** <http://jfm.sagepub.com/subscriptions>

**Reprints:** <http://www.sagepub.com/journalsReprints.nav>

**Permissions:** <http://www.sagepub.com/journalsPermissions.nav>

>> [Version of Record](#) - Jun 27, 2013

[What is This?](#)

Downloaded from [jfm.sagepub.com](http://jfm.sagepub.com) at Universite de Liege on September 3, 2013



# AUJESZKY'S DISEASE/PSEUDORABIES IN CATS

## ABCD guidelines on prevention and management

Etienne Thiry, Diane Addie, Sándor Belák, Corine Boucraut-Baralon, Herman Egberink, Tadeusz Frymus, Tim Gruffydd-Jones, Katrin Hartmann, Margaret J Hosie, Albert Lloret, Hans Lutz, Fulvio Marsilio, Karin Möstl, Maria Grazia Pennisi, Alan D Radford, Uwe Truyen and Marian C Horzinek



### Virus

Aujeszky's disease/pseudorabies is caused by suid herpesvirus 1, belonging to the genus *Varicellovirus* in the subfamily *Alphaherpesvirinae*, family *Herpesviridae*, order *Herpesvirales*.

### Epidemiology

Transmission of Aujeszky's disease virus in cats occurs mainly through the ingestion of raw pork, and particularly pork lungs or pig offal. It can also be indirect, following viral excretion by pigs and, therefore, in the absence of contacts with pigs. In the case of Aujeszky's disease out-

breaks in other species, such as sheep, feline cases have also been observed.<sup>1</sup>

The disease has been eradicated in pigs in several European countries, and there is no longer a risk of Aujeszky's disease

**Overview:** Although pseudorabies in swine – Aujeszky's disease – has been eradicated from many pork-producing countries, the virus may still lurk in other vertebrate species and cause feline cases. Infection occurs through the ingestion of uncooked meat and organ material and presents as an acute encephalitis with a short incubation period and a rapidly fatal outcome. The ABCD considers this reason enough to include a review of this, now very rare, condition in this Special Issue.

#### European Advisory Board on Cat Diseases

The European Advisory Board on Cat Diseases (ABCD) is a body of experts in immunology, vaccinology and clinical feline medicine that issues guidelines on prevention and management of feline infectious diseases in Europe, for the benefit of the health and welfare of cats. The guidelines are based on current scientific knowledge of the diseases and available vaccines concerned.

The latest version of the Aujeszky's disease/pseudorabies in cats guidelines is available at [www.abcd-vets.org](http://www.abcd-vets.org)

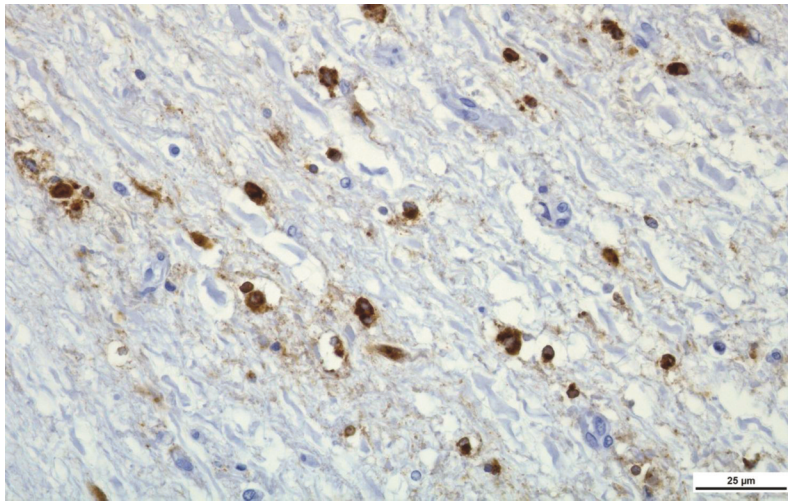
virus transmission to cats. However, the prevalence of Aujeszky's disease virus infection in wild boar can be high in western European countries, and Aujeszky's disease is still sporadically observed in hunting dogs. This peculiar epidemiological situation does not represent an increased risk of infection for cats.

### Pathogenesis

The virus enters via the oral route and replicates in the tonsils and the pharynx. It spreads through the central nervous system via the cranial nerves (Figure 1) and is excreted with oral and nasal secretions. However, this excretion has no epidemiological consequences, since the cat does not transmit the virus.

Aujeszky's disease in cats may potentially be mistaken for rabies – but disease progression is more rapid than in rabies, and affected cats are rarely aggressive.





**Figure 1** Immunoperoxidase staining of a brain section from a dog that had died from Aujeszky's disease. Infected cells show a brownish precipitate. Courtesy of Professor Pumarola, Universitat Autònoma de Barcelona, Spain

## Clinical signs

This disease is encountered sporadically, mainly in urban cats fed pig offal. As in dogs, the incubation period is short, lasting for 2–4 days. The infection causes acute encephalitis, the initial clinical signs of which are excitation and hypersalivation. The cat presents with anorexia, sometimes with intense pruritus, which leads to lesions due to scratching and self-mutilation. More copious salivation ensues, and the nervous signs become more pronounced, with a lack of coordination and paralysis. When this clinical picture is observed, it may be mistaken for rabies. However, cats that develop Aujeszky's disease are rarely aggressive, and disease progression is more rapid than in rabies. The outcome is invariably fatal, within 12–48 h of the onset of clinical signs.<sup>2</sup>

## Diagnosis

A polymerase chain reaction developed for the detection of Aujeszky's disease virus in pigs can be used on brain and lung tissue homogenates from cats. However, when clinical signs of encephalitis are seen in cats (pseudorabies), the differential diagnosis of rabies must always be ruled out.

## Disease management

No treatment is possible with this deadly disease.

## Control

Attenuated Aujeszky's disease virus vaccines have been developed to protect pigs, but these are still virulent for carnivores, including cats. Only inactivated or subunit vaccines are safe,

## KEY POINTS

- ✦ Aujeszky's disease virus is a swine herpesvirus that can be transmitted to cats mainly through the ingestion of raw pork.
- ✦ Aujeszky's disease in cats presents as an acute encephalitis with a short incubation period and a rapidly fatal outcome.
- ✦ Prevention of infection relies on cooking meat or pork offal or, better still, using commercial pet food, as well as avoiding contact with infected pigs.



but they unfortunately have not demonstrated any efficacy against Aujeszky's disease in cats. Infection of cats (and dogs) can be prevented by cooking meat or pork offal, by feeding commercial pet food, and avoiding contact with infected pigs.<sup>3</sup>

## Funding

The authors received no specific grant from any funding agency in the public, commercial or not-for-profit sectors for the preparation of this article. The ABCD is supported by Merial, but is a scientifically independent body.

## Conflict of interest

The authors do not have any potential conflicts of interest to declare.

## References

- 1 Henderson JP, Graham DA and Stewart D. **An outbreak of Aujeszky's disease in sheep in Northern Ireland.** *Vet Rec* 1995; 136: 555–557.
- 2 Maes L and Pensaert M. **Pseudorabies virus (Aujeszky's disease).** In: Appel MJ (ed). *Virus infections of carnivores*. Amsterdam: Elsevier Science, 1987, pp 241–246.
- 3 Thiry E. **Aujeszky's disease.** In: *Clinical virology of the dog and cat*. Reuil-Malmaison, France: Editions du Point Vétérinaire, Wolters-Kluwer, 2006, pp 125–126.